

# **EXHIBIT 21**

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS

)

DePuy Mitek, Inc. )  
a Massachusetts Corporation )  
                        )  
                        Plaintiff, )  
                        )  
                        v. ) Civil Action No. 04-12457 PBS  
                        )  
Arthrex, Inc. )  
a Delaware Corporation )  
                        )  
                        Defendant. )  
                        )

**REBUTTAL EXPERT REPORT OF JOHN F. WITHERSPOON**

I am the same John F. Witherspoon who submitted expert reports in this litigation on March 3, 2006 and March 24, 2006, which reports I incorporate herein by reference. I have reviewed the expert report of Dr. Matthew Hermes and I submit this report in response to aspects of Dr. Hermes' report that relate to patent practices and procedures, including his reply to certain opinions set forth in my March 3 report. I have also reviewed the Rebuttal Expert Report of Dr. Debi Prasad Mukherjee, as well as the transcript of the deposition of Donald Grafton given on March 14, 2006.

I.

1. I do not fully understand the significance of the attempt to distinguish between "a person of ordinary skill in the art" and "a person of skill in the art" in paragraph 31 of the Hermes report, because this seems to suggest that the level of skill of the persons referenced in sections 103 and 112 of the statute is not the same. I am not aware of any authority in support of this position.

2. Much of the discussion in the sections of the Hermes report dealing with a motivation to combine various prior art references is based on a number of false premises. (See, especially paragraphs 48-60, 110-117, 125-129 and 139-142.) For example, the report suggests that the motivation must be found in the references themselves. That is not a requirement. The teaching, motivation, or suggestion to combine relevant prior art disclosures does not have to be found explicitly in the prior art. Rather, it may be provided by a consideration of the prior art as a whole. The test is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. In this regard, the problem to be examined is not the specific problem solved by the invention, but the general problem that confronted the inventor before the invention was made, and to the extent paragraphs 21 and 22 of the Hermes report indicate otherwise, I disagree.

## II.

3. In paragraphs 168-184, Dr. Hermes attempts to explain that the claimed invention was reduced to practice at least as early as February 1989. Evidence of a reduction to practice must reflect every limitation recited in the claims. I fail to find any discussion in Dr. Hermes's report of evidence demonstrating the actual making and evaluation of a sterilized surgical suture by the inventors. Further, a three year wait before filing a patent application after an alleged reduction to practice is itself some evidence that a reduction to practice may not have occurred as early as alleged.

4. The most that Dr. Hermes has identified by way of an alleged reduction to practice is a braided structure made of PTFE and PET. Even assuming that such a braid

constitutes a reduction to practice for that combination, it fails to antedate Chesterfield as a prior art reference unless it is established that that work would be understood by a person of ordinary skill in the art to have generic applicability to the claimed braided structures of sufficient scope as to embrace a braid made of UHMWPE and PET or nylon. I find no such demonstration in the Hermes report.

### III.

5. In paragraphs 185-194, Dr. Hermes attempts to explain that certain statements to the examiner by the applicants' attorney, Mr. Goodwin, while prosecuting the '446 patent were not inconsistent with Dr. Steckel's testimony. I disagree with Dr. Hermes. Nothing in his report causes me to change my opinion.

6. In his deposition, Dr. Steckel gave the following testimony (page 188, line 13 to page 192, line 9):

- Q. And when you say, "Spectra," if I were to substitute Dyneema, Spectra or Dyneema –
- A. Yes. Yeah.
- Q. – that would be a fair thing?
- A. Yes.
- Q. Did you have an idea of which yarn you—to braid Dyneema with?
- A. Which yarn would we have braided it with?
- Q. Yes, sir. Did you have that idea?
- MR. BONELLA: Objection. Asked and answered.
- A. Generically, one which would improve the knot strength of Dyneema.
- Q. Would that include PET?
- A. It would include, essentially, all of the current—all of Ethicon's non-absorbable multifilaments at the time, which would include PET, nylon, silk—that's it.
- Q. So, if I understand your testimony—
- A. Yes.
- Q. --you had, at least in your mind—
- A. Yes.
- Q. --the idea of braiding together Dyneema and PET.
- A. It was one of the combinations, yes.
- Q. And did you have a view—and when did you have this idea?

- A. This—this would date back to the early conversation with Al Hunter in terms of what benefits could we derive from forming composites of dissimilar fibers.
- Q. Did you have—in formulating this idea, did you have any sort of belief that if you put Dyneema together with PET, it would lead to an acceptable suture?
- A. It would lead to a suture with potentially improved properties over Ethibond.
- Q. Did you have a belief as to whether that would be an acceptable suture?
- MR. BONELLA: Objection. Asked and answered.
- A. We had a belief that it could lead to—as you’re saying—an acceptable suture. There were other issues that we didn’t know. For example, how the—how polyethylene behaved in the body. So, it was a high priority. Polyethylene, even though there was an interest, it wasn’t a—it wasn’t something that was a high priority at the time.
- Q. The thought didn’t cross your mind that, Oh, this would make an unacceptable suture to put Dyneema together with PET?
- A. My recollection was—an unacceptable suture or an acceptable?
- Q. An unacceptable suture.
- A. Well, the concern with any of the very high-strength fibers was always knot strength, and that was true whether it was Dyneema, Spectra, Kevlar, etcetera. So, the general view was, I mean, all of those—100 percent, all of those, Ethicon evaluated at one point as a suture material. They’re the world’s biggest suture material company. And all of them there was an interest in how do you improve the knot strength of them, and can you—that was—that was something we discussed.
- Q. I’m not sure I understand your answer.
- A. Go ahead.
- Q. And I’m trying to—
- A. Sure.
- Q. When you had this idea that you could blend Dyneema together with PET, were you—did you believe it would make an acceptable suture or an unacceptable suture?
- A. No. We believed—we believed that that could offer a suture with straight tensile that was better than Ethibond, and you know, could potentially solve the knot issues, and again, that was a generic view for all of the high-tenacity fibers.
- Q. You thought it was a good idea—
- A. Yes. Yes.
- Q. --rather than a bad idea?
- A. No., we viewed—we viewed that as a potential good idea.
- Q. And you didn’t think, Oh, that’s a bad idea.
- MR. BONELLA: Objection. Asked and answered.
- A. I don’t know if it was good or bad. You now, it was—

- Q. You thought it was a good idea?
- A. We thought we could have improved knot strength, and we could get the beneficial properties of both in a blend. That's what we thought.

Thus, according to Dr. Steckel, before filing their application in the PTO the applicants believed that a braided structure of Dyneema and PET (a polyester) could have good knot characteristics. They believed that this combination could lead to an acceptable suture.

7. During prosecution of their application, however, when faced with a rejection based on a prior art disclosure (Burgess) of a fishing line having a braided structure of a high molecular weight polyethylene, Dyneema being specifically named, with polyester and/or nylon, the applicants tried to convince the examiner that their braid was patentable over the braid of the fishing line by making the following representations (Amendment mailed August 4, 1982) (all emphases in original):

In fact, the fishing line of Burgess would have poor knot strength properties because of its braided construction, as set forth in more detail below: (Page 2)

Therefore, the property requirements for fishing line yield a braid with poor knot strength and security, and the requirements for sutures yield a braid which has by necessity excellent knot strength and security. (Page 3)

Even if he did use the teachings of the fishing line art to modify a suture, then he would inevitably design an unacceptable suture. (Pages 3-4)

The examiner's rejection on Burgess was then dropped, which the applicants acknowledged with gratitude.

8. In my opinion, the statements made to the examiner are not consistent with Dr. Steckel's testimony. On the one hand, according to Dr. Steckel, he and Mr. Hunter believed that a braid of Dyneema and PET could provide an acceptable suture with improved knot strength characteristics; on the other hand, they told the examiner that the

Burgess braid would have poor knot strength properties. It is also my opinion that the statements made to the examiner are affirmative misrepresentations, if the applicants believed that their claims included braids of Dyneema and PET. And they are highly material misrepresentations, because they were made in an attempt to overcome a rejection based on a very close prior art reference, which attempt turned out to be successful.

9. Dr. Hermes has four responses to my opinion. First, he says that in my earlier report I failed to include the words "the teachings of the fishing line art" in the last of the three quotations set forth above. I do not understand his point. My earlier discussion was clearly referring to the fishing line art as disclosed in Burgess, namely a fishing line of a braid having Dyneema filaments and filaments of polyester and/or nylon. In any event, I have now included the words in the quotation above, and my opinion remains the same. Second, Dr. Hermes says he is not clear what statements by Dr. Steckel I have in mind. The statements are easily found in the transcript and they are set forth above. Third, Dr. Hermes says that Dr. Steckel's testimony is not inconsistent with the attorney's statements. As already indicated, I very much disagree. Dr. Steckel testified that he and Mr. Hunter believed that the combination of Dyneema and a polyester could lead to an acceptable suture with improved knot strength. Mr. Goodwin represented the opposite in the applicants' successful attempt to overcome prior art. A braid that could lead to an acceptable suture with improved knot strength does not become otherwise by calling it a fishing line. Fourth, Dr. Hermes says that nothing was withheld from the examiner because the application of the '446 patent "discloses ultra high molecular weight polyethylene, UHMWPE." Dr. Mukherjee does not agree. In any

event, I fail to find any mention of the terms “Dyneema,” “Spectra,” “ultra high molecular weight polyethylene,” or “UHMWPE” anywhere in the ‘446 patent. (Nor, incidentally, do I find any of this terminology anywhere in Dr. Steckel’s notebooks that I reviewed.) In my opinion, no reasonable examiner would have dropped a rejection based on Burgess if she believed that the applicants’ claims included a braid of Dyneema and PET, based on the arguments made by the applicants. Many of the attorney’s arguments would have been irrelevant, since the claims do not recite such properties as elongation and knot strength and security, upon which to distinguish the disclosure of Burgess. In my opinion, the examiner here must have believed that the claims did not include braids of Dyneema and PET.

April 13, 2006

  
John F. Witherspoon

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true and correct copy of the foregoing Rebuttal Expert Report of John F. Witherspoon was served, via Fedex, on the following counsel for Plaintiff on the 13th day of April 2006:

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/s/Salvatore P. Tamburo

# **EXHIBIT 22**

1 IN THE UNITED STATES DISTRICT COURT  
2 FOR THE DISTRICT OF MASSACHUSETTS  
3

4 DEPUY MITEK, INC., a Massachusetts )  
5 Corporation, )  
6 Plaintiff, ) Civil Action  
7 v. ) No. 04-12457 RBS  
8 ARTHREX, INC., a Delaware )  
9 Corporation, )  
10 )  
11 PEARSALLS LTD., a Private Limited )  
12 Company of the United Kingdom, )  
13 Defendants. )  
14 - - - - -  
15

16 VIDEO DEPOSITION OF JOHN WITHERSPOON  
17 Washington, D.C.  
18 Tuesday, June 20, 2006

19 The videotaped deposition of JOHN WITHERSPOON was  
20 convened on Tuesday, June 20, 2006, commencing at  
21 9:03 a.m., at the offices of Dickstein Shapiro Morin  
22 & Oshinsky LLP, 2101 L Street, Northwest,  
23 Washington, D.C., before Cynthia R. Simmons Ott,  
24 Registered Merit Reporter, Certified Realtime  
25 Reporter, and Notary Public.

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|---|--|
| <p>1 respect to the materiality of a representation<br/>     2 made by Attorney Goodwin to the Patent Office<br/>     3 during prosecution of the Hunter patent?<br/>     4 A. Well, I formed an opinion that the<br/>     5 representations made by counsel to the examiner<br/>     6 with respect to an effort which was successful<br/>     7 in getting rid of a rejection based on Burgess,<br/>     8 and statements made by Dr. Steckel in his<br/>     9 deposition, are not consistent.<br/>     10 So you could look at it either of two<br/>     11 ways. That the statements by the attorney<br/>     12 should not have been made, that those are<br/>     13 material because they're inconsistent with the<br/>     14 facts as testified to by Dr. Steckel, or that<br/>     15 if they were made, there was material<br/>     16 information withheld, namely the information<br/>     17 that Dr. Steckel testified to. Either way,<br/>     18 when you look at the situation from the<br/>     19 standpoint of the examiner examining the case,<br/>     20 the examiner didn't have the full story.<br/>     21 Q. Do you plan to testify that material<br/>     22 information was withheld from the examiner?<br/>     23 A. Well, you know, obviously, I don't<br/>     24 know what questions I'll be asked. But if<br/>     25 asked, I would so testify.</p> | <p>138</p> <p>1 Q. And if PE in the patent is construed<br/>     2 by the Court to encompass ultra high molecular<br/>     3 weight polyethylene, then it's the case, is it<br/>     4 not, that the patent discloses that a braid, a<br/>     5 successful -- a suture can be successfully made<br/>     6 by a, out of a combination of ultra high<br/>     7 molecular weight polyethylene and PET?<br/>     8 A. Would you repeat that, please?<br/>     9 THE REPORTER: "Question: And if PE<br/>     10 in the patent is construed by the Court to<br/>     11 encompass ultra high molecular weight<br/>     12 polyethylene, then it's the case, is it not,<br/>     13 that the patent discloses that a braid, a<br/>     14 successful -- a suture can be successfully made<br/>     15 by a, out of a combination of ultra high<br/>     16 molecular weight polyethylene and PET?"<br/>     17 MR. SABER: Objection, vague and<br/>     18 overbroad.<br/>     19 THE WITNESS: Well, I'm not sure we<br/>     20 mentioned this, but my prior testimony about<br/>     21 the withholding of material information is<br/>     22 conditioned on the Court construing the claim<br/>     23 as to cover ultra high molecular weight<br/>     24 polyethylene.<br/>     25 BY MS. ELDERKIN:</p> <p>140</p> |
| <p>1 Q. And what material information would<br/>     2 you testify was withheld from the examiner?<br/>     3 MR. SABER: Objection, asked and<br/>     4 answered.<br/>     5 THE WITNESS: That Dr. Steckel and --<br/>     6 at least Dr. Steckel, and perhaps Mr. Hunter as<br/>     7 well, believed back in 1988 or '89 that a braid<br/>     8 made of Spectra, an ultra high molecular weight<br/>     9 polyethylene and polyethylene terephthalate,<br/>     10 PET, could provide a successful suture, could<br/>     11 provide a braid which could be converted into a<br/>     12 successful suture.<br/>     13 BY MS. ELDERKIN:<br/>     14 Q. And it's your opinion that that was a<br/>     15 material bit of information for the examiner?<br/>     16 A. Yes, because contrary information was<br/>     17 being told to the examiner. Absent the<br/>     18 contrary information, then I would not consider<br/>     19 this information to be material. But it's<br/>     20 material because it is inconsistent with what<br/>     21 had been told to the examiner.<br/>     22 Q. Okay. And which of the tests for<br/>     23 materiality are you applying in arriving at<br/>     24 that conclusion?<br/>     25 A. Either one.</p>   | <p>139</p> <p>1 Q. So if the Court considers that PE<br/>     2 includes ultra high molecular weight<br/>     3 polyethylene, then one skilled in the art<br/>     4 reading the Hunter patent application would<br/>     5 understand that PE, when it's referenced, would<br/>     6 include ultra high molecular weight<br/>     7 polyethylene, right?<br/>     8 MR. SABER: Objection, vague.<br/>     9 THE WITNESS: Well, I think several<br/>     10 issues are being mixed. If I understand your<br/>     11 question correctly, my response is that a court<br/>     12 can construe a claim in such a way that it's<br/>     13 invalid. It doesn't follow that if this court<br/>     14 were to construe PE in the claim to include<br/>     15 ultra high molecular weight PE, that it's a<br/>     16 valid claim.<br/>     17 Those are other issues to be decided<br/>     18 at another time and place. So what the<br/>     19 significance of that insofar as what the<br/>     20 disclosure is, and so on, have not been fully<br/>     21 decided, simply by virtue of the claim<br/>     22 construction.<br/>     23 BY MS. ELDERKIN:<br/>     24 Q. Right. But if the Court finds that<br/>     25 one skilled in the art would read the term PE</p> <p>141</p>                            |

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|---|---|
| <p>1 analysis?</p> <p>2 A. I'd have to see his report.</p> <p>3 Q. Did you consider long felt need in<br/>4 adopting his obviousness conclusion?</p> <p>5 A. I considered it as a factor to take<br/>6 into account if I was aware of it, but I did<br/>7 not focus on it, because I wasn't aware of any<br/>8 such secondary considerations.</p> <p>9 Q. Did you consider or did Dr. Mukherjee<br/>10 consider commercial success in arriving at his<br/>11 obviousness conclusion?</p> <p>12 A. I need to see his report.</p> <p>13 Q. Did you consider commercial success?</p> <p>14 A. Again, I did not make a study of it,<br/>15 an investigation of it.</p> <p>16 Q. Did you consider it at all?</p> <p>17 A. Well, I considered it to the extent<br/>18 that typically in a litigation, if infringement<br/>19 is found, there's typically some commercial<br/>20 success. But that begs the question as to<br/>21 whether the commercial success of the defendant<br/>22 here is evidence of nonobviousness of the<br/>23 claimed subject matter.</p> <p>24 Q. Did you consider whether the<br/>25 commercial success here was the result of the</p> | <p>182</p> <p>1 A. Unexpected. Well, that's -- what I<br/>2 said seems to me is equitable in part for all<br/>3 these factors. The short answer is, no, I did<br/>4 not look at each of the -- of the secondary<br/>5 considerations, and undertake an evaluation as<br/>6 to whether they're entitled to too much weight.</p> <p>7 Q. In paragraph 58 of your first report,<br/>8 you begin a discussion that proceeds for<br/>9 several paragraphs about whether Dr. Steckel,<br/>10 Mr. Hunter and/or Mr. Goodwin may have violated<br/>11 their duty to disclose material information to<br/>12 the Patent Office.</p> <p>13 And I note that in that first sentence<br/>14 in paragraph 58, you say that "you expect to<br/>15 testify that these gentlemen may have violated<br/>16 their duty to disclose material information to<br/>17 the PTO." And I note the language may have<br/>18 violated. Do you intend to testify that they<br/>19 did violate their duty to disclose material, or<br/>20 that they may have violated their duty to<br/>21 disclose material information?</p> <p>22 A. Well, I don't know quite how to answer<br/>23 that, other than that it depends upon how the<br/>24 evidence at trial comes to -- comes in. And I<br/>25 say that because there's some additional</p> |
| <p>1 claimed subject matter?</p> <p>2 A. No.</p> <p>3 Q. Do you know, did Dr. Mukherjee<br/>4 consider whether results achieved by the<br/>5 invention were unexpected?</p> <p>6 A. I don't know without looking at his<br/>7 report.</p> <p>8 Q. In adopting his obviousness<br/>9 conclusion, did you consider whether results<br/>10 achieved by the invention were unexpected?</p> <p>11 A. Well, with respect to many of these<br/>12 factors, it's my understanding that the<br/>13 plaintiff is not commercializing a product<br/>14 under the patent, but that the plaintiff<br/>15 contends that the defendant is. And the<br/>16 defendant contends they're not. So I don't<br/>17 know how I would quite get a handle on -- I<br/>18 mean, if you accept defendant's contention that<br/>19 they're not infringing, then there's no<br/>20 evidence of commercial success.</p> <p>21 Q. Okay. My question wasn't about<br/>22 commercial success, it was whether in adopting<br/>23 Dr. Mukherjee's conclusions about obviousness,<br/>24 you considered whether results achieved by the<br/>25 invention were unexpected?</p>                     | <p>183</p> <p>1 information that I think needs to be found, for<br/>2 which I don't have access now, that would bear<br/>3 on whether there was a violation or not.</p> <p>4 And that turns on answers to the<br/>5 question of who knew what when. At this point<br/>6 in time, there's some circumstantial evidence<br/>7 that suggests that Mr. Steckel was aware of<br/>8 what the patent examiner had been told, but I<br/>9 can't point to a particular document or a piece<br/>10 of testimony that clearly establishes that.</p> <p>11 That's the reason for the use of the word may.</p> <p>12 In other words, there's a lot of<br/>13 information that indicates to me that there may<br/>14 have been a violation here, and this isn't just<br/>15 pulled out of thin air. But at this point in<br/>16 time, I could not specifically say what</p> <p>17 Dr. Steckel knew when, or what Mr. Goodwin knew<br/>18 when, or Mr. Hunter knew when. But there's<br/>19 evidence from which one could infer that they<br/>20 knew.</p> <p>21 Q. And without evidence, without<br/>22 knowledge of what they knew, you cannot<br/>23 conclude that any of those gentlemen violated<br/>24 their duty of disclosure?</p> <p>25 MR. SABER: Objection, misstates the</p>                                     |

1 testimony.

2 THE WITNESS: Could you read that  
3 back, please?

4 BY MS. ELDERKIN:

5 Q. And without knowledge of what those  
6 gentlemen knew, and when they knew it, you  
7 cannot conclude that any of them violated their  
8 duty of disclosure?

9 MR. SABER: Same objection, misstates  
10 the testimony, inconsistent with his testimony.

11 THE WITNESS: Well, no, I stand by the  
12 statement that I've made here, that they may  
13 have violated their duty. And I have referred  
14 to the deposition testimony of Dr. Steckel and  
15 Mr. Goodwin. But I would be -- I would not be  
16 inclined, at this point, to say that they, in  
17 fact, did violate it, knowing only what I know  
18 now.

19 But I could say that it could well be  
20 a very -- there's a very good chance that they  
21 did, one or the other. And I'm thinking in  
22 particular -- well, any of the three. Goodwin,  
23 as I recall, said that Dr. Steckel was the  
24 point man or the person he interacted with,  
25 particularly with respect to preparing the

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1 doesn't add up.

2 And if -- and then Goodwin goes off,  
3 he either wasn't -- it seems to me he either  
4 wasn't told that we're talking about ultra high  
5 molecular weight polyethylene here when he was  
6 writing up this patent application, or he was  
7 told and deliberately misled the examiner when  
8 it came to talking about Burgess. I don't see  
9 how both of those can be -- can be reconciled.

10 Q. You considered the Burgess disclosure,  
11 right, you refer to it in paragraph 60 of your  
12 report?

13 A. Yes.

14 Q. Let me give you a copy of that. And  
15 again, sorry, we just have the one copy here.  
16 Let's put an exhibit sticker on there. We'll  
17 mark as DePuy Mitek Exhibit 379, a copy of UK  
18 patent application 2,218,312.

19 MR. SABER: It's 379.

20 MS. ELDERKIN: 379, yes.

21 (DePuy Mitek Exhibit Number 379 was  
22 marked for identification.)

23 BY MS. ELDERKIN:

24 Q. So again, you refer to some  
25 disclosures in the Burgess patent in paragraph

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1 application and prosecuting it early on, which  
2 suggests to me that Dr. Steckel and Mr. Goodwin  
3 had a lot of information in common.

4 And if we believe Dr. Steckel's  
5 testimony, which I'm prepared to accept, we  
6 have all this Spectra and PET activity and  
7 thought patterns and so on, that that's what  
8 they thought could produce a good suture. And  
9 this was well before the patent application was  
10 filed.

11 And Goodwin worked with him in  
12 preparing the patent application. It seems odd  
13 to me that that kind of information would not  
14 have been communicated to Mr. Goodwin. The  
15 kinds of things he said in his deposition that  
16 he knew all about, and was talking to Hunter  
17 about. And yet you don't see boo in the patent  
18 application about Spectra or Dyneema or ultra  
19 high molecular weight polyethylene.

20 It's another reason that suggests to  
21 me that that wasn't contemplated when this  
22 patent application was written. Just PE and  
23 now even though this is a hot number, this  
24 Spectra stuff, why wouldn't it have been  
25 mentioned in the patent application. It just

1 60 of your report. I'm going to just ask you  
2 whether Burgess discloses the knot strength of  
3 any fishing line made according to its  
4 teachings?

5 A. I don't recall seeing it there, and I  
6 don't recall seeing it in the claims, so I find  
7 these arguments irrelevant.

8 Q. Did Burgess disclose --

9 A. By these, I don't mean anything you  
10 said, but what Mr. Goodwin was arguing.

11 Q. Right. Did Burgess -- did the Burgess  
12 disclosure include any reference to the knot  
13 security of the fishing line disclosed in the  
14 patent?

15 A. Again, from my reading of the document  
16 as a patent lawyer, not a person skilled in the  
17 art, I don't see those words, and I don't have  
18 enough technical information to know whether  
19 they're implicit. Sometimes documents contain  
20 implicit disclosures such as the things you're  
21 talking about, which would not be apparent to  
22 me. Those words are missing, from the claim as  
23 well.

24 Q. Does Burgess disclose the particular  
25 configuration of the braided structure

# **EXHIBIT 23**

**Deposition of:  
Dr. Mark G. Steckel**

January 26, 2006

Page 1

# **TRAVEL TRANSCRIPT**

DePUY MITEK, INC.,  
Plaintiffs,  
  
vs.  
  
ARTHREX, INC., a Delaware  
corporation,  
Defendants.

12 DEPOSITION of DR. MARK G. STECKEL,  
13 called as a witness by and on behalf of the  
14 Defendant, pursuant to the applicable provisions of  
15 the Federal Rules of Civil Procedure, before P.  
16 Jodi Ohnemus, Notary Public, Certified Shorthand  
17 Reporter, Certified Realtime Reporter, and  
18 Registered Merit Reporter, within and for the  
19 Commonwealth of Massachusetts, at the Courtyard  
20 Marriott, 423 Speen Street, Natick, Massachusetts,  
21 on Thursday, 26 January, 2006, commencing at 10:44  
22 a.m.

Deposition of:  
Dr. Mark G. Steckel

January 26, 2006

|  |  |
|--|--|
| <p style="text-align: right;">Page 106</p> <p>1 A. We were certainly looking at fiber. We<br/>     2 were certainly considering fibers that offer higher<br/>     3 tensile strength than -- than strictly PET.</p> <p>4 Q. And that was the aromids?</p> <p>5 MR. BONELLA: Object to form.</p> <p>6 A. That was one of -- that was one example.</p> <p>7 Q. Is there anything else?</p> <p>8 MR. BONELLA: In the patent?</p> <p>9 MR. SABER: Yes, sir.</p> <p>10 MR. BONELLA: If you want to read the<br/>     11 patent, read the patent. Object to form.</p> <p>12 A. Well, the patent describes generic classes<br/>     13 of polymers, and the high strength aspect of it has<br/>     14 more to do with how those polymers were processed.<br/>     15 So, any of those polymers that are listed, you<br/>     16 know, could be processed in a high strength form or<br/>     17 a medium-strength form or a low-strength form.</p> <p>18 Q. When you're saying, "these," which ones<br/>     19 are you talking about?</p> <p>20 A. I'm referring to the polymers listed in<br/>     21 the claims.</p> <p>22 Q. All of them?</p> <p>23 A. All of those can be processed to get a<br/>     24 range of low, medium, or relatively high strength.</p> <p>25 Q. All right. Let's look at the</p> | <p style="text-align: right;">Page 108</p> <p>1 Q. Right, in the first set.</p> <p>2 A. Right.</p> <p>3 Q. -- that are mechanically blended with<br/>     4 yarns of the second set, which act to provide<br/>     5 improved strength to the heterogeneous braid."</p> <p>6 Isn't that talking about the second set, providing<br/>     7 "improved strength to the heterogeneous braid"?</p> <p>8 A. Yeah, within the context of this<br/>     9 paragraph. But once again, PET, for example, could<br/>     10 be, you know, could be in a -- in a low strength or<br/>     11 medium strength or a high strength.</p> <p>12 Q. I'm talking about what's being -- what's<br/>     13 being explained in this paragraph.</p> <p>14 A. Okay.</p> <p>15 Q. Is this -- isn't it true that this<br/>     16 paragraph is explaining that the -- that the yarns<br/>     17 from the second set are there to provide improved<br/>     18 strength to the braid?</p> <p>19 MR. BONELLA: Object to form.</p> <p>20 A. My read of this is that in this particular<br/>     21 embodiment, the second set would be offering<br/>     22 strength.</p> <p>23 Q. And that's the only yarns that are<br/>     24 specifically mentioned are PET, nylon, and aromids,<br/>     25 is that correct?</p> |
| <p style="text-align: right;">Page 107</p> <p>1 specification, if we could.</p> <p>2 A. Okay.</p> <p>3 Q. Could you look at Column 4, please. Yes.<br/>     4 The paragraph that starts at Line 33.</p> <p>5 A. Yes.</p> <p>6 Q. Is that paragraph disclosing the polymers<br/>     7 which are to act as strength --</p> <p>8 MR. BONELLA: Object --</p> <p>9 Q. -- to provide improved strength to the<br/>     10 braid?</p> <p>11 MR. BONELLA: Object to form.</p> <p>12 A. (Witness reviews document.) I'm sorry.<br/>     13 Could you repeat the question.</p> <p>14 Q. Yeah.</p> <p>15 MR. SABER: Could you read it back,<br/>     16 please.</p> <p>17 (Question read back.)</p> <p>18 MR. BONELLA: Object to form.</p> <p>19 Q. Let me rephrase that. Does that paragraph<br/>     20 provide suggested polymers to provide improved<br/>     21 strength to the braid?</p> <p>22 MR. BONELLA: Object to form.</p> <p>23 A. That paragraph describes two sets of --<br/>     24 that describes "Lubricating yarns in the first<br/>     25 set --"</p>   | <p style="text-align: right;">Page 109</p> <p>1 MR. BONELLA: Object to form.</p> <p>2 A. Those --</p> <p>3 Q. As providing the strength.</p> <p>4 A. Those are the only --</p> <p>5 MR. BONELLA: Object to form.</p> <p>6 A. -- ones mentioned.</p> <p>7 Q. In that paragraph?</p> <p>8 A. As far -- yes.</p> <p>9 Q. Is there any other mention in this patent<br/>     10 -- specific mention of any other yarn there to<br/>     11 provide strength?</p> <p>12 MR. BONELLA: In the patent?</p> <p>13 MR. SABER: Yes, sir.</p> <p>14 MR. BONELLA: If he needs to read the<br/>     15 patent, read the entire patent to answer the<br/>     16 question then.</p> <p>17 A. Are there any other fibers mentioned --</p> <p>18 Q. Any other yarns mentioned to provide<br/>     19 strength --</p> <p>20 A. I would say.</p> <p>21 Q. -- to the --</p> <p>22 A. Any of the polymers that we mentioned<br/>     23 could be the strength.</p> <p>24 Q. Could you tell me where it says that. I<br/>     25 want to know exactly what you're relying upon in</p>  |

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1 A. That's a sheath and core on fiber level.  
 2 Q. Okay. On the fiber --  
 3 A. And that's -- and that can be braided into  
 4 -- so you could have -- what I was trying to show  
 5 there is you could have a co-extrusion, if you  
 6 will, of two different polymers.  
 7 Q. Could you explain to me what you're  
 8 talking about there.  
 9 A. Yeah. You could have a construction where  
 10 each individual filament of each individual yarn  
 11 essentially had more than one polymer type.  
 12 Q. Okay.  
 13 A. So, you're blending at a level -- as you  
 14 go down this list, it's a more intimate blend of  
 15 fiber types.  
 16 Q. Okay. Well -- maybe it's best to talk  
 17 each separately. Did you consider using a carrier  
 18 blend where Spectra would be one of the yarns and  
 19 something else would be the second yarn?  
 20 A. I considered using high-tenacity fibers,  
 21 including Spectra for any of the top three --  
 22 Q. Okay.  
 23 A. -- carrier yarn or fiber commingled.  
 24 Q. Okay.  
 25 A. And that would be Spectra, Kevlar, any of

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1 Q. That's a you don't think you did it? Is  
 2 that your answer?  
 3 A. Yeah, I don't think we did it.  
 4 Q. Okay. Do you have -- did you think of --  
 5 did you --  
 6 A. And by the -- oh. Can I clarify one  
 7 thing? When I say, "Spectra," there were multiple  
 8 sources of that, and I may not just be -- it might  
 9 not have just been the Allied. There was one from  
 10 Holland as well.  
 11 Q. Called Dyneema?  
 12 A. Yes.  
 13 Q. And when you say, "Spectra," if I were to  
 14 substitute Dyneema, Spectra or Dyneema --  
 15 A. Yes. Yeah.  
 16 Q. -- that would be a fair thing?  
 17 A. Yes.  
 18 Q. Did you have an idea of which yarn you --  
 19 to braid Dyneema with?  
 20 A. Which yarn would we have braided it with?  
 21 Q. Yes, sir. Did you have that idea?  
 22 MR. BONELLA: Objection. Asked and  
 23 answered.  
 24 A. Generically, one which would improve the  
 25 knot strength of Dyneema.

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1 the high tenacity ones, that was part of the  
 2 generic concept of, can you manipulate the  
 3 mechanical properties?  
 4 Q. Okay. Did you -- is there any  
 5 documentation that you know of using Spectra as one  
 6 of the yarns in any of the first three processes  
 7 described here?  
 8 A. I suspect that it was documented, but I --  
 9 I'm not familiar with where and in whose  
 10 notebook --  
 11 Q. Would you expect it to be in someone's  
 12 notebook?  
 13 A. I know we were poking around that area. I  
 14 would suspect it was captured. Unfortunately,  
 15 that's a big group and a long time ago.  
 16 Q. Do you know whether any -- any prototypes  
 17 were built under any of these three types of --  
 18 these three processes where Spectra was one of the  
 19 yarns with a second dissimilar -- second different  
 20 yarn?  
 21 A. I would -- most likely not. We were  
 22 trying to demonstrate the concept, and we -- we  
 23 didn't feel we needed to do that on a lot of  
 24 different fiber types, and Spectra was one of the  
 25 more difficult ones to process.

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1 Q. Would that include PET?  
 2 A. It would include, essentially, all of the  
 3 current -- all of Ethicon's non-absorbable  
 4 multifilaments at the time, which would include  
 5 PET, nylon, silk -- that's it.  
 6 Q. So, if I understand your testimony --  
 7 A. Yes.  
 8 Q. -- you had, at least in your mind --  
 9 A. Yes.  
 10 Q. -- the idea of braiding together Dyneema  
 11 and PET.  
 12 A. It was one of the combinations, yes.  
 13 Q. And did you have a view -- and when did  
 14 you have this idea?  
 15 A. This -- this would date back to the early  
 16 conversation with Al Hunter in terms of what  
 17 benefits could we derive from forming composites of  
 18 dissimilar fibers.  
 19 Q. Did you have -- in formulating this idea,  
 20 did you have any sort of belief that if you put  
 21 Dyneema together with PET, it would lead to an  
 22 acceptable suture?  
 23 A. It would lead to a suture with potentially  
 24 improved properties over Ethibond.  
 25 Q. Did you have a belief as to whether that

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1 would be an acceptable suture?

2 MR. BONELLA: Objection. Asked and  
3 answered.  
4 A. We had a belief that it could lead to --  
5 as you're saying -- an acceptable suture. There  
6 were other issues that we didn't know. For  
7 example, how the -- how polyethylene behaved in the  
8 body. So, it was a high priority. Polyethylene,  
9 even though there was an interest, it wasn't a --  
10 it wasn't something that was a high priority at the  
11 time.

12 Q. The thought didn't cross your mind that,  
13 Oh, this would make an unacceptable suture to put  
14 Dyneema together with PET?

15 A. My recollection was -- an unacceptable  
16 suture or an acceptable?

17 Q. An unacceptable suture.

18 A. Well, the concern with any of the very  
19 high-strength fibers was always knot strength, and  
20 that was true whether it was Dyneema, Spectra,  
21 Kevlar, etcetera. So, the general view was, I  
22 mean, all of those -- 100 percent, all of those,  
23 Ethicon evaluated at one point as a suture  
24 material. They're the world's biggest suture  
25 material company. And all of them there was an

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1 answered.  
2 A. I don't know if it was good or bad. You  
3 know, it was --

4 Q. You thought it was a good idea?

5 A. We thought we could have improved knot  
6 strength, and we could get the beneficial  
7 properties of both in a blend. That's what we  
8 thought.

9 Q. Okay. Is there any documentation of using  
10 Dyneema or Spectra, blending it together with  
11 another component -- another -- a yarn -- is there  
12 any documentation that exists that you know of?

13 A. I haven't -- I haven't seen any. I am not  
14 aware of any.

15 Q. Do you know whether that was in your idea  
16 memo?

17 A. I do not know. I have not seen my idea  
18 memo.

19 MR. BONELLA: He said he doesn't know if  
20 he did.

21 THE WITNESS: I'm sorry.

22 MR. SABER: Actually, he did. He  
23 testified he does remember doing it, but that's  
24 okay.

25 Q. Could you look at the Claim 1 of the 446

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1 interest in how do you improve the knot strength of  
2 them, and can you -- that was -- that was something  
3 we discussed.

4 Q. I'm not sure I understand your answer.

5 A. Go ahead.

6 Q. And I'm trying to --

7 A. Sure.

8 Q. When you had this idea that you could  
9 blend Dyneema together with PET, were you -- did  
10 you believe it would make an acceptable suture or  
11 an unacceptable suture?

12 A. No. We believed -- we believed that that  
13 could offer a suture with straight tensile that was  
14 better than Ethibond, and you know, could  
15 potentially solve the knot issues, and again, that  
16 was a generic view for all of the high-tenacity  
17 fibers.

18 Q. You thought it was a good idea --

19 A. Yes. Yes.

20 Q. -- rather than a bad idea?

21 A. No, we viewed -- we viewed that as a  
22 potential good idea.

23 Q. And you didn't think, Oh, that's a bad  
24 idea.

25 MR. BONELLA: Objection. Asked and

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1 patent, please. And I want to talk about Group A  
2 and the Group B.

3 A. Okay.

4 Q. Other than PET and PP or PET and PTFE, is  
5 there any documentation that you know of that  
6 exists of any other combination of one yarn from  
7 the first group and one yarn from the second group?

8 MR. BONELLA: Object to the form of the  
9 question.

10 A. The only documentation that I can speak  
11 with any confidence is -- is this. I mean, it's  
12 just been too long.

13 Q. I'm just asking you to do the best you  
14 can.

15 A. Yeah, of course. So, I mean, I can't  
16 speak with any confidence that there's  
17 documentation that shows any other combination.

18 Q. Do you --

19 A. My recollection was --

20 Q. Go ahead.

21 A. -- to show the concept we focused on PET  
22 and PTFE, and PET and polypropylene. We thought  
23 that it would demonstrate the concept. Some of  
24 these materials, as you may know, are not readily  
25 available in the form that we would need. You

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49 (Pages 190 to 193)